

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

SDxx.TCT-MS

Product specification

DESCRIPTION

The SDxx.TCT-MS Series is designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

This series has been specifically designed to protect sensitive components which are connected to power, data and transmission lines from overvoltage caused by ESD(electrostatic discharge), CDE (Cable Discharge Events),and EFT (electrical fast transients).

APPLICATIONS

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports
- Peripherals

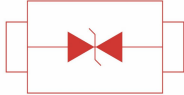
FEATURES

- IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- 350 Watts Peak Pulse Power per (tp=8/20 μs)
- Protects one I/O line (unidirectional)
- Low clamping voltage
- Working voltages : 3.3V to 36V
- Low leakage current

MACHANICAL

- SOD-323 package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranteed:260°C/10s
- Reel size: 7 inch
- MSL 1

Reference News

SOD-323	Graphic symbol
	

MARKING

SD03.TCT-MS	SD05.TCT-MS	SD08.TCT-MS	SD12.TCT-MS	SD15.TCT-MS
				
SD18.TCT-MS	SD20.TCT-MS	SD24.TCT-MS	SD36.TCT-MS	
				

ABSOLUTE MAXIMUM RATING

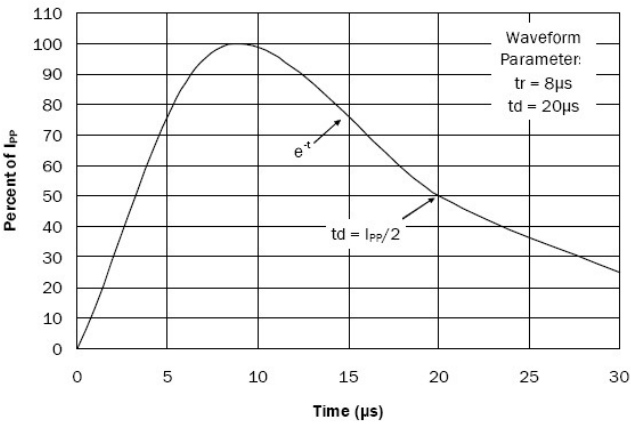
Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	± 15 ± 8	kV
P_{PP}	Peak Pulse Power (8/20 μ s)	350	W
T_{OPT}	Operating Temperature	-55/+150	°C
T_{STG}	Storage Temperature	-55/+150	°C
T_L	Lead Soldering Temperature	260 (10 sec.)	°C

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$)

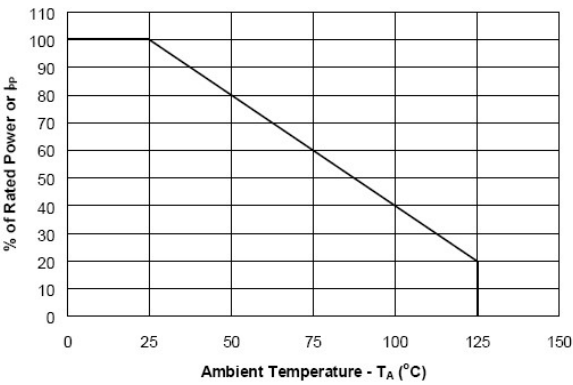
PART NUMBER	V_{RWM} (V) (max.)	V_B (V) (min.)	I_T (mA)	$V_C@1A$ (V) (max.)	V_C (V) (max.) (@A)		I_R (μ A) (max.)	C_T (pF) (max.)
SD03.TCT-MS	3.3	4	1	6.5	14	20	40	450
SD05.TCT-MS	5	6	1	9.8	18	17	10	300
SD08.TCT-MS	8	8.5	1	10.5	24	15	1	240
SD12.TCT-MS	12	13.3	1	19	32	11	1	130
SD15.TCT-MS	15	16.7	1	24	38	10	1	120
SD18.TCT-MS	18	20.0	1	29	45	9	1	100
SD20.TCT-MS	20	22.3	1	35	50	8	1	90
SD24.TCT-MS	24	26.7	1	43	52	7	1	80
SD36.TCT-MS	36	40	1	60	75	5	1	60

ELECTRICAL CHARACTERISTICS CURVE

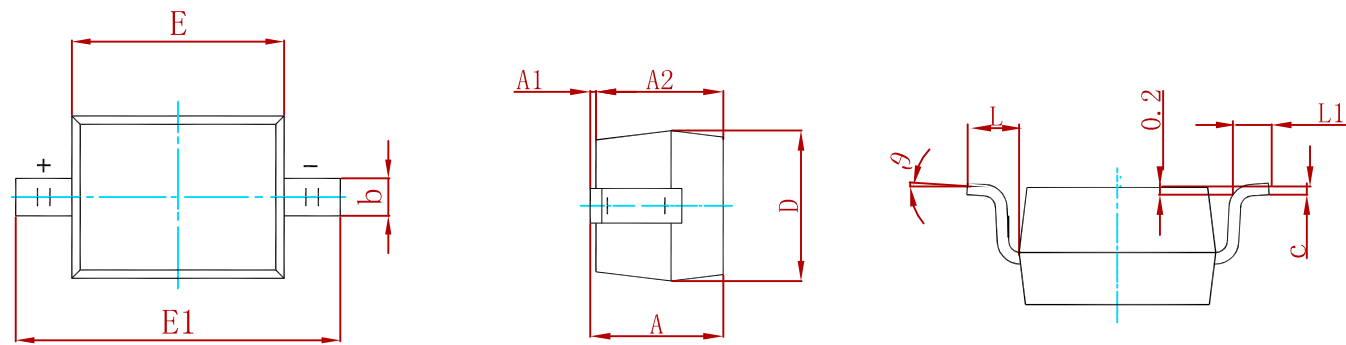
Pulse Waveform



Power Derating Curve

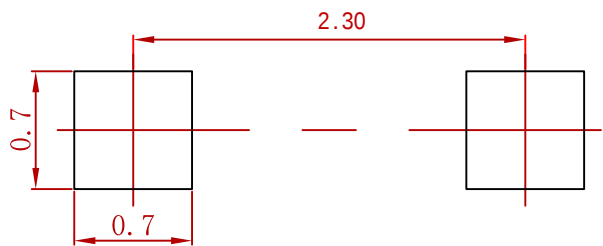


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.050		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.950	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.250	0.450	0.010	0.016
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
SDxx.TCT-MS	SOD-323	3000

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